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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,735	12/21/2005	Harald Gunne	095309.56285US	2702

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EXAMINER	
HSIAO, JAMES K	
ART UNIT	**PAPER NUMBER**
3683	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/535,735	GUNNE ET AL.	
	Examiner	Art Unit	
	JAMES K. HSIAO	3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 37-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 37-41, as best understood are generally unclear and indefinite. The scopes of the claims are unclear, for example the term “brake effect” is unclear. The driver action on the pedal is a brake effect, the brake interventions is a brake effect. The only prior mention of “brake effect” is in claim 30 in the last line where it is directed towards an “effect” on the rear wheels.

Regarding claims 37 and 38, as best understood, the braking effect initiated by the driver is being reduced by the brake interventions, what is the braking effect? Is it the reduction of braking interventions? The driver initiated braking process? And in claim 38 it is unclear as to what the braking effect is. Is it the deceleration? Is it the predefined criterion?

Regarding claims 39-41, it is unclear what is meant by the term “maintain” and “maintained,” what is being maintained? How is it not maintained?

As best understood, the invention detects and evaluates a problem, instability, roll, etc. and then applies a solution, i.e. a brake intervention or yaw moment.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 30-36 and 42-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Leimbach et al. (DE-10065724).

The following rejection relies upon the above DE reference, however the US equivalent (US-20040080209) will be relied upon for an English translation.

Regarding claim 30, Leimbach et al. discloses a method for determining and evaluating at least one dynamic movement input variable (abstract), implementing at least braking interventions for stabilizing the dynamic movement state of the vehicle combination for the towing vehicle when a rolling movement of the vehicle combination is detected upon evaluating the at least one dynamic movement input variable (paragraph 5); and producing a yaw moment that counteracts the rolling movement of the vehicle, combination by braking interventions applied to the front wheels of the towing vehicle (paragraph 31); and implementing braking interventions at the rear wheels of the towing vehicle that effect essentially constant braking at the rear wheels only when a predefined operating state of the vehicle combination is present (paragraph 31).

Regarding claims 31 and 33, Leimbach et al. discloses wherein the predefined operating state of the vehicle combination is present if a rolling movement of the vehicle combination is detected when there is no braking by the driver and the vehicle

combination is located on an underlying surface with a low coefficient of friction (paragraph 28).

Regarding claims 32 and 34, Leimbach et al. discloses wherein the predefined operating state of the vehicle combination is present if a rolling movement of the vehicle combination is detected, when there is no braking by the driver (paragraph 28) and when the braking interventions which are applied to the front wheels cause a risk of the front wheels locking. When brakes are applied there is always a "risk" of wheel lock.

Regarding claims 35 and 36, Leimbach et al. discloses wherein the predefined operating state of the vehicle combination is present if a rolling movement is detected during a driver initiated braking process, and vehicle deceleration occurring as a result of the driver initiated braking process fulfills a predefined comparative criterion (paragraph 28, lines 1-5).

Regarding claim 42, Leimbach et al. discloses wherein the braking interventions, applied to the front wheels, give rise to braking forces, composed of a basic force and a dynamic force component (paragraph 4).

Regarding claim 43, Leimbach et al. discloses wherein at least the towing vehicle is equipped with one of a hydraulic, an electrohydraulic, a pneumatic, and an electropneumatic brake system; and the braking interventions which are applied to the front wheels are such that a brake pressure which is composed of a basic pressure and dynamic pressure peaks is supplied to wheel brake cylinders assigned to the front wheels (paragraphs 3 and 4).

Regarding claim 44, Leimbach et al. discloses wherein a yaw moment which counteracts a rolling movement of the vehicle combination is produced by the dynamic force component (paragraph 31).

Regarding claim 45, Leimbach et al. discloses wherein a value of the basic force components or pressure is determined as a function of a deviation in a yaw angle rate that results from the difference between the actual value for the yaw angle rate which is determined using a yaw angle rate sensor and a setpoint value for the yaw angle rate which is determined using a mathematical model (paragraph 31-39).

Regarding claim 46, Leimbach et al. discloses wherein the value for the dynamic force component is determined as a function of a variable, which describes a change over time of a deviation in the yaw angle rate (paragraphs 31-39).

Regarding claim 47, Leimbach et al. discloses wherein both the basic pressure and the dynamic pressure peaks decrease as the rolling movement decreases (paragraphs 31-39).

Regarding claim 48, Leimbach et al. discloses wherein engine interventions are also carried out in addition to braking interventions; and a moment which is output by the engine is set by way of the engine interventions in such a way that substantially no circumferential forces occur at the driven wheels of the towing vehicle (paragraph 29).

Regarding claim 49, Leimbach et al. discloses wherein engine interventions are carried out in addition to braking interventions; and torque which is output by the engine is set by the engine interventions in such a way that friction losses which occur in the

drive train are compensated and the driven wheels are given a neutral setting as far as the circumferential force is concerned (paragraph 29).

Regarding claim 50, Leimbach et al. discloses a stabilization system that include brake interventions. Once the vehicle is stable again the braking interventions are ceased and normal driving operations continue.

Regarding claim 51, Leimbach et al. discloses wherein braking interventions are carried out at the front wheels as a function of one of a value of sensed yaw moment which acts in the vehicle and a value of the sensed yaw acceleration (paragraph 31).

Regarding claim 52, Leimbach et al. discloses wherein at least a yaw angle rate of the towing vehicle is determined and evaluated as a dynamic movement input variable (paragraph 31).

Regarding claim 53, Leimbach et al. discloses wherein vehicle speed, yaw angle rate and steering angle are evaluated to determine whether a rolling movement is occurring (paragraph 4).

Regarding claim 54, Leimbach et al. discloses wherein a rolling movement is occurring if the yaw angle rate exhibits an oscillating behavior in an operating state of the vehicle combination in which the vehicle speed is higher than an associated threshold value, even though the driver is not making any steering interventions (abstract).

Regarding claim 55, Leimbach et al. discloses wherein the presence of a rolling movement of the vehicle combination is detected as a function of a deviation variable

which includes a deviation between actual value of the yaw angle rate and an associated set point value (paragraphs 31-39).

Regarding claim 56, the rejection of claim 56 relies upon the subject matter as is read above.

Response to Arguments

5. Applicant's arguments filed 11/14/2007 have been fully considered but they are not persuasive. It is not clear from the applicant's argument what specific limitations of the claims are not met by the prior art and rejection as read above. The examiner maintains that the rejection is proper.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES K. HSIAO whose telephone number is (571)272-6259. The examiner can normally be reached on Monday through Friday 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JKH

/Robert A. Siconolfi/
Supervisory Patent Examiner, Art Unit 3683